Call with NDDEQ and Office of Water re: ND's Se WQC Jan 8, 2020

Attendees: Pete Wax (NDDEQ), Erica Fleisig (OW), Mario Sengco (OW), Lars Wilcut (OW), Karen Kesler (OW), Holly Wirick (R8)

ND is happy with ovum concentration in WQC... and how it impacts aquatic life.

The issue is making the connection with the water column.

Pete said they'll start collecting mussel data and asked if anyone could foresee problems if they wrote the new selenium criteria but just used the organism concentration and no water column criteria. He said the problem is that there's lots of naturally-occurring selenium in the state. They have lots of violations for selenium in the state, but it's not related to anything anthropogenic (Se in soils).

He likes the idea of the fish criteria, particularly, the egg-ovary, but is not excited about water (lentic or lotic) concentration.

Karen asked how would selenium be permitted if ND only has fish tissue criteria?

Pete said dischargers would still have to meet the current water quality (20 ug/L for acute and 5 ug/L for chronic). EPA's water numbers are really tiny for ND (1.3 ug/L lentic; 30-day) and 3.1 ug/L lotic; 30-day).

EPA would have an issue with ND retaining the 5 ug/L chronic and adding an ovary number on top of it. It doesn't show the linkage between 1.3 and 3.1 (they can work on water column number). They would have difficulty with 5 ug/L and adding ovum because of scientific validity.

EPA has taken the 20th percentile of the spectrum of the water column values in the country.

Pete doesn't see the connection as clearly as he'd like to when writing a standard and the new criteria would affect many more people and add many more listings, and would not likely see and improvements in water quality.

Lars said EPA doesn't want states to spend money that they don't have to spend or list waters they shouldn't have to list. Their first preference is for the state to have data to develop its own water column values that accompany the egg ovary and fish tissue values so you're working with appropriate water column values (EPA's), even if nationally-derived criteria don't work for ND's waters. The least preferable option is for the state to retain the 5 ug/L (chronic) and 20 ug/L (acute) values on the books now.

Karen said that if fish tissue values are met the state wouldn't have to list the waters even if water column numbers are high.

Another concern of Pete's is that the 2016 selenium criteria are finalized. The state wants to be responsive to this.

Karen said ND could use muscle or fish tissue to come up with more appropriate water column values for the state. If you have those tissue values, the way criteria are structured, that concentration is the criteria for listing. If you don't have fish tissue values, then you look at water column values.

If collecting [data], you need water column and concentrations in fish tissue. Egg over tissue is strongest correlation for toxicity effects. If collecting [?...] those values can be used to find appropriate water column values for ND.

ND may not take action this time around. Have to talk with WQ monitors... ND may have some old data – they looked at whole fish and skin ... filets... maybe circa Gold Book.

EPA said they need more recent data, but it would give good ballpark...

They can even do ecoregional criterion – it's an element - how it's accumulating is driven by dynamics of system so if it it's more appropriate splitting into ecoregions, EPA can help review it to make sure they're getting the right numbers.

Pete asked if ND writes egg and ovary and whole fish with footnote (with footnote to say as data come in they'll work in water column) but don't leave current number on the books?

Correct. Water column value is in to help with permitting issues.

When you take data its all over the place depending on where last rainfall occurred.

The key point is that EPA is hoping to see with water column elements related to fish tissue elements or some other thing in WQS that explains to others how you'd derive water column elements if it's not in the standards. EPA can help.

ND WQS ROC Selenium WQC Jan 8 2020